Activity 6 Assessment
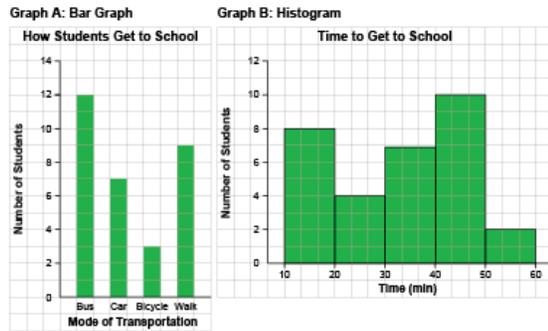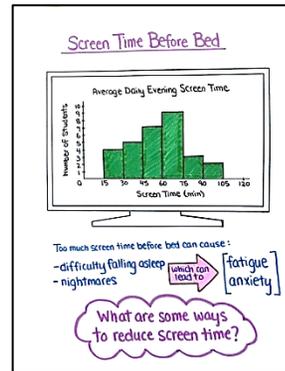## Data Management Consolidation

---

Creating and Interpreting Graphs

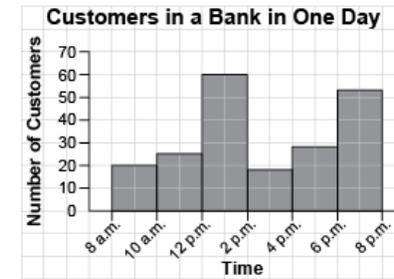| Uses common attributes (basic shape, scale, titles, and labels) to create different graph types.	Chooses graph types based on the data (e.g., line graphs, histograms) and justifies choice.	Uses graphs to answer some questions within and beyond the data.

Graph A: Bar Graph — How Students Get to School

Graph B: Histogram — Time to Get to School

"I created a bar graph and a histogram about getting to school."

Screen Time Before Bed — Average Daily Evening Screen Time

Too much screen time before bed can cause:
– difficulty falling asleep
– nightmares
which can lead to: fatigue, anxiety

What are some ways to reduce screen time?

"I created a histogram to show the amount of screen time students have in the evening. Since my audience is Grade 6 students, I made the graph look more fun and engaging by drawing the histogram in a TV screen."

Customers in a Bank in One Day

"I drew lines to find how old Benji was when he was 80 cm tall: about 2 years 9 months. I assumed Benji continued to grow at the same rate and estimated he would be about 125 cm tall at age 11."

Observations/Documentation

Activity 6 Assessment
Data Management Consolidation

Creating and Interpreting Graphs (cont'd)

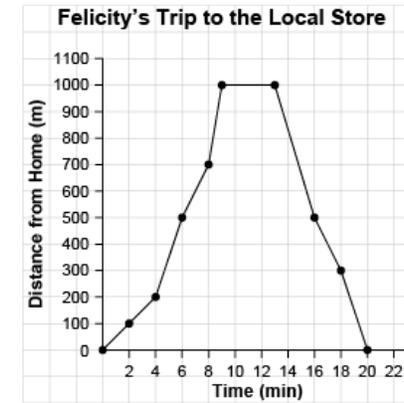| Uses attributes of graph and measures of central tendency to draw some conclusions.	Analyzes data, draws conclusions, and makes convincing arguments.	Fluently solves problems by graphing data and interpreting the results.
Brad had these practice times, in seconds, for the 400-m sprint: 73, 64, 55, 81, 68, 62, 57, 64 "I determined the range: 26; mode: 64; median: 64; mean: 65.5. Brad's average practice time is about 64 s."	**Customers in a Bank in One Day** (bar graph: Number of Customers vs. Time — 8 a.m., 10 a.m., 12 p.m., 2 p.m., 4 p.m., 6 p.m., 8 p.m.) "I would use the data to convince the bank to have more staff on between 12 noon and 2 p.m. and between 6 p.m. and 8 p.m. as that is when the bank is busiest."	**Felicity's Trip to the Local Store** (line graph: Distance from Home (m) vs. Time (min)) "From the graph, I see Felicity spent 4 minutes at the store as her distance from home did not change."

Observations/Documentation

Mathology 6
Copyright © 2022 Pearson Canada Inc.

The right to reproduce or modify this page is restricted to purchasing schools.
This page may have been modified from its original.

Activity 6 Assessment
Data Management Consolidation

Collecting and Organizing Data		
Recognizes the difference between first- and second-hand data. "I measured the height of the tomato plant daily, so that is first-hand data. I got the heights of the basketball players from the Internet, so that is second-hand data."	Formulates questions to help with data collection. "I wanted to find my classmates' favourite raw vegetable. I asked: What is your favourite raw vegetable: cauliflower, broccoli, celery, carrot, cucumber, other?"	Chooses best method to collect data (e.g., first- or second-hand data, survey vs experiment, databases vs electronic media). "To find out what people think about the renovations to the community centre, I would collect first-hand data using a questionnaire."
Observations/Documentation		

Activity 6 Assessment
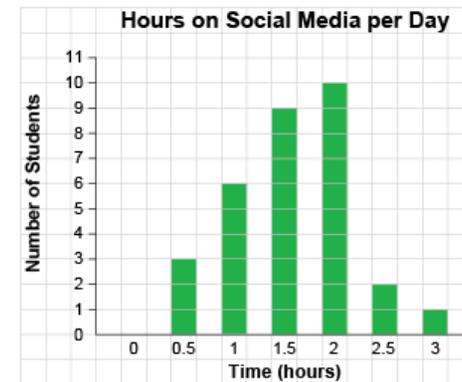## Data Management Consolidation

Collecting and Organizing Data (cont'd)

Chooses representative sampling technique to collect relevant data (e.g., simple/systematic random, stratified).	Represents collected data using appropriate organizers.	Uses collected data to draw conclusions and make informed decisions.
"I can't survey everyone who enters the community centre. I will use systematic random sampling and survey every 10th person."	"I would display the data in a bar graph so that it is easy for others to see how satisfied the community is with the renovations."	"This graph tells me that more of my Grade 6 classmates spend between 1.5 h and 2 h a day on social media. This is a sample of the Grade 6 students and is not representative of all Grade 6 classes across Canada."

Observations/Documentation